Registration of ‘Jackpot’ Bermudagrass

Jackpot bermudagrass [Cynodon dactylon (L.) Pers.] (Reg. no. CV-30, PI 584324), a seed-producing cultivar, was developed by Jacklin Seed Company, Post Falls, ID, and was released by Jacklin Seed on 10 Aug. 1995. The first certified seed was produced in August 1995. Jackpot was tested under the experimental codes J-912 and J-91.

Jackpot was derived from crosses to a single clone (CD-91) collected from an old turf area in the Columbia River Basin area in the state of Washington in October 1987. CD-91 was vegetatively increased and planted in spaced-planted nurseries in Post Falls, ID, and Roll, AZ. This clone was used in numerous crosses with cold-tolerant, fine-textured pollen parents, most of which were also selected from Washington state. Maternal progeny from seven crosses were used to establish a 1.0-ha selection block in Dome Valley, AZ, in early 1990. In September 1991, floret fertilities were measured and progeny growouts were conducted from randomly selected plants from the seven progeny lines in this block. Two breeding lines with high floret fertility levels were identified, CD91-2-3 and CD91-2-5. These two lines were allowed to open-pollinate with plants in the 1990 selection block. Twenty-six hundred progeny from these two lines were used to establish a spaced-plant breeder block near Dome Valley. Plants were removed that did not conform with the common phenotype of the population for height, leaf texture, color, high seed yield potential, and maturity. Approximately 15% of the plants were rogued prior to anthesis. The remaining plants were allowed to vegetatively repopulate the breeder seed block.

Jackpot bermudagrass is a seed-propagated, tetraploid (2n = 4x = 36), turf-type bermudagrass with an attractive medium-dark green color, medium-high density, and medium-fine leaf texture. In the 1992 National Turfgrass Evaluation Program bermudagrass test, Jackpot displayed improved performance over seeded Arizona common in turf quality; color; spring green-up; leaf texture; spring, summer, and fall densities; and spring and fall percent living ground cover (3). The color of Jackpot was similar to ‘Tifgreen’ (2) and ‘Texturf-10’ (1), two vegetatively propagated cultivars.

Under seed field production conditions, initial flowering of Jackpot is approximately 1 to 2 wk later than Arizona common. At maturity, plant height of Jackpot is approximately 187 mm and seed head length (from tip of spike to first node) averages 126 mm. In turf, Jackpot should perform well when used for lawns, parks, roadsides, cemeteries, golf course roughs and fairways, and other sports turfs in areas where bermudagrass is adapted.

Breeder seed of Jackpot is maintained by Jacklin Seed Co., Post Falls, ID. Seed production of Jackpot is limited to three generations of increase, one each of foundation, registered, and certified. Application (no. 9500002) has been made for U.S. plant variety protection.

Registration of ‘Sunrise’ Proso Millet

‘Sunrise’ (Reg. no. CV-186, PI 583347) proso millet [Setaria miliacea (L.) Pers.] was developed and released by the USDA-ARS in May 1995. Sunrise, a white proso millet, was released because of its large seed, high yield potential, tolerance, and mid-season maturity.

Sunrise was selected from the cross, NE83014/NE83007, which has the expanded pedigree ‘Minn 402’*/Dawn/3*/‘Minco’//Dawn/Panhandle. Both parents were introduced in the greenhouse during the winter of 1985 to 1986. ‘Minco’ is a bulk increase of an F4 line selected in the greenhouse during the winter of 1985 to 1986.

Field testing of Sunrise in Nebraska began testing in regional trials in 1991 to 1993. Sunrise yielded an average grain yield of 4.83 Mg ha−1 in 1991, 4.27 Mg ha−1 in 1992, and 4.56 Mg ha−1 in 1993. The relative yield of Sunrise is similar to ‘Huntsman’ and ‘Rise’, and more than 20% greater than ‘Sunup’. Sunrise has the expanded pedigree ‘Minn 402’*/Dawn/3*/‘Minco’//Dawn/Panhandle. Both FI and ?2 seed were produced in the greenhouse during the winter of 1985 to 1986. Sunrise was selected from the cross, NE83014/NE83007, and is a bulk increase of an F4 line selected in the greenhouse during the winter of 1985 to 1986.

Sunrise was tested under the experimental codes J-912 and J-913 at the Post Falls, ID, and Roll, AZ, test sites. Sunrise averaged 147 seeds g−1, which was slightly higher than Sunup. Sunrise has the highest general combining ability for seed size in a diallel cross of the cultivars Earlybird, Huntsman, Dawn, and Rise and an experimental line. Grain volume weight of Sunrise is 723 g L−1, which is significantly different from that of Sunup.

Sunrise is similar to Rise and Earlybird, and to Russian wheat aphid [Diuraphis noxia (Mordvilko)]. Sunrise was released because of its large seed, high yield potential, tolerance, and mid-season maturity.

Breeders seed of Sunrise will be maintained by the Nebraska Foundation Seed Division, Dep. of Agronomy, Panhandle, ‘Cope’, or Minco. Sunrise has shown no susceptibility to lodging than Sunup. Sunrise averages 147 seeds g−1, which is similar to Earlybird and 8% less than Sunup. Sunrise has a white lemma and palea, a compactum type panicle, and green foliage.

Sunrise is similar to Rise and Earlybird, and to Russian wheat aphid [Diuraphis noxia (Mordvilko)]. Sunrise was released because of its large seed, high yield potential, tolerance, and mid-season maturity.

Breeders seed of Sunrise will be maintained by the Nebraska Foundation Seed Division, Dep. of Agronomy, Panhandle, ‘Cope’, or Minco. Sunrise has shown no susceptibility to lodging than Sunup. Sunrise is similar to Rise and Earlybird in plant height and general combining ability for seed size in a diallel cross of the cultivars Earlybird, Huntsman, Dawn, and Rise and an experimental line. Grain volume weight of Sunrise is 723 g L−1, which is significantly different from that of Sunup.

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